



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,190	07/15/2003	Pasqua Colaiana	108910-00110	4947
4372	7590	12/14/2004	EXAMINER	
ARENT FOX KINTNER PLOTKIN & KAHN 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			HU, HENRY S	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/619,190

Applicant(s)

COLAIANNA ET AL.

Examiner

Henry S. Hu

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Amendment of October 27, 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This Office Action is in response to Amendment filed on October 27, 2004. **Claims 1-4 were amended, and new claims 6-7 were added.** The examiner confirms the support for new Claims 6-7. **Claims 1-7 are now pending.**

The specification objections (a) and (b) as well as claim objections for Claims 1-2 are corrected as typographical error suggested by the examiner. With respect to 101/112-2<sup>nd</sup> rejection for Claims 3-4, the Applicants have amended the improper "use" claim to process claim. In view of above amendment, the examiner thereby withdraws the specification objections, claim objections and 101/112-2<sup>nd</sup> claim rejections. **Since the limitation of parent Claim 1 has been amended to narrow MFVE to the range of 3.7% - 5.2% by mole, all 102 and/or 103 rejections in the previous Office Action filed on July 28, 2004 are now removed.** After a new search including a library structure search, a Final Action with new set of rejections follows.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1713

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Pucciariello (Journal of Applied Polymer Science, Vol. 64, 407-409 (1997)).

The limitation of parent **Claim 1** of the present invention relates to *copolymers formed by TFE and FMVE, having the following composition: (a) FMVE in per cant by moles from 3.7% to 5.2%, (b) the % TFE moles being the complement to 100% of the FMVE moles. See other limitations of dependent **Claims 2-7**.*

5. Regarding the limitation of parent **Claim 1**, **Pucciariello** discloses the preparation of **various bipolymers of tetrafluoroethylene (TFE) and perfluoromethylvinylether (PMVE)** (same as FMVE, please see such a recitation on page 4 at line 10) with a specific **2, 4, 6 and 10 mole% for PMVE monomer** (page 407 on experimental-material, line 1-3; also see page 408 for Figure 3). **Pucciariello** further discloses that such bipolymers are melt-processable (same as thermoprocessable) (see Figures 1 and 2). Therefore, the specific **TFE/PMVE bipolymer with 4 mole% of PMVE as prepared by Pucciariello reads on the limitation of Claim 1 having a limitation on PMVE in the range of 3.7-5.2 mole%.**

6. Claims 2 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Pucciariello** (Journal of Applied Polymer Science, Vol. 64, 407-409 (1997)).

The above discussion of the disclosures of the prior art of **Pucciariello** for Claim 1 of this office action is incorporated here by reference. Regarding the limitation of dependent **Claims 2 and 6-7**, the reference is **silent about the properties such as melt flow index and the second melting temperature**. In light of the fact that the prior art and the present invention recite **(a) substantially identical dipolymer composition and (b) using the same or similar type of polymerization process** (see pages 6-8 for present application, particularly see the cited **US Patent No. 4,864,006 to Giannetti et al.**), a reasonable basis exists to believe that the products of the invention inherently possess the same properties. Since PTO does not have proper means

Art Unit: 1713

to conduct experiments, the burden of proof is now shifted to Applicants to show otherwise. *In re Best*, 195 USPQ 430 (CCPA 1977).

7. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pucciariello (Journal of Applied Polymer Science, Vol. 64, 407-409 (1997)) in view of Abulseme et al. (US 5,463,006).

The above discussion of the disclosures of the prior art of Pucciariello of this office action is incorporated here by reference. Regarding **Claims 3-5**, Pucciariello is silent about using the copolymer to prepare sheaths, cables and wires. **Abulseme et al.** teaches that fluorinated copolymers can be prepared by comprising TFE and PMVE, the advantage is such copolymers can be useful for coating electrical cables by melt extrusion (column 1, line 4-6).

In light of the fact that both fluorinated copolymers prepared by Pucciariello and Abulseme are using the same or similar co-monomers such as TFE and PMVE, one ordinary skill in the art would therefore apply such copolymers made by Pucciariello to have the same application in making electrical cables including the cables for Local Area Networks as taught by Abulseme.

### ***Conclusion***

Art Unit: 1713

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

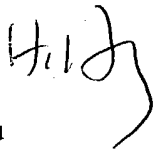
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Henry S. Hu whose telephone number is (571) 272-1103. The examiner can be reached on Monday through Friday from 9:00 AM –5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306 for all regular communications.

Art Unit: 1713

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Henry S. Hu

December 13, 2004



DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700